

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~heat exchanger, in particular a charge-air cooler for motor vehicles, in particular for utility vehicles, with~~ comprising:
a heat exchanger unit, ~~which comprises that includes~~ tubes having tube ends and in particular fins arranged between the tubes, and
at least one laterally arranged header box configured to introduce or discharge ~~for introducing or discharging~~ a medium, wherein the at least one header box has having a bottom with openings for receiving the tube ends, a cover and an inlet or outlet connecting pipe,
wherein the header box is at least partially produced by internal high-pressure forming (IHF) of a metallic semifinished product.
2. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein only the cover is produced by IHF and is welded to the bottom.
3. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 2, wherein the semifinished product is a rolled aluminum sheet.
4. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein only the cover and the bottom are produced as a single piece from a semifinished product by IHF and are connected to the connecting pipe with a cohesive material joint, in particular are welded or soldered thereto.
5. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, the bottom, the cover and the connecting pipe are produced as a single piece by IHF.
6. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 4, wherein the semifinished product is an extruded aluminum tube.
7. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 5, wherein the connecting pipe is prebent before the IHF process.
8. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein a part of the cover of the header box has a longitudinal bead produced by pressing [[()]]from the outside[[()]] and/or IHF [[()]]from the inside[[()]].

9. (Currently Amended) A [[The]] heat exchanger as claimed in claim 8, a charge-air cooler for motor vehicles, comprising:

a heat exchanger unit, that includes tubes having tube ends and fins arranged between the tubes, and

at least one laterally arranged header box configured to introduce or discharge a medium, wherein the at least one header box has a bottom with openings for receiving the tube ends, a cover and an inlet or outlet connecting pipe,

wherein the header box is at least partially produced by internal high-pressure forming (IHF) of a metallic semifinished product,

wherein a part of the cover of the header box has a longitudinal bead produced by pressing from the outside and/or IHF from the inside,

wherein the longitudinal bead is of conical design and has a cross section which increases in a direction pointing away from the connecting pipe while a [[the]] cross-sectional area of the header box decreases.

10. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein, after the IHF process, the header box has at least one open end surface which is closed by a cover ~~which can be soldered into place.~~

11. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 4, wherein the openings in the bottom are produced by punching, ~~in particular by punching counter to a hydraulic internal high pressure.~~

12. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 4, wherein the openings in the bottom are produced by prepunching before the IHF and/or by drawing through, ~~in particular drawing through counter to a hydraulic internal high pressure.~~

13. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the header box has a wall thickness which, at least in some regions, ~~preferably for the most part,~~ is greater than 2 mm, ~~in particular greater than 3 mm.~~

14. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the header box has a wall thickness which, at least in some regions, ~~preferably for the most part,~~ is smaller than 5 mm, ~~in particular smaller than 4 mm.~~

15. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the bottom has a curvature which, at least in some regions, ~~preferably for the most part,~~ has a radius of curvature greater than 100 mm, ~~in particular greater than 200 mm.~~
16. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the bottom has a curvature which, at least in some regions, ~~preferably for the most part,~~ has a radius of curvature smaller than 400 mm, ~~in particular smaller than 300 mm.~~
17. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the bottom in the transition region to the cover has a curvature which, at least in some regions, ~~preferably for the most part,~~ has a radius of curvature greater than 5 mm, ~~in particular greater than 10 mm.~~
18. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the bottom in the transition region to the cover has a curvature which, at least in some regions, ~~preferably for the most part,~~ has a radius of curvature smaller than 20 mm, ~~in particular smaller than 15 mm.~~
19. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the header box, at least in some regions, ~~preferably for the most part,~~ has a step- and/or kink-free cross section.
20. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein a connecting pipe is designed as an end-side extension of the header box and ~~in particular~~ is curved.
21. (Currently Amended) The charge-air cooler ~~heat exchanger~~ as claimed in claim 1, wherein the ~~the~~ connecting pipe is arranged laterally on the header box.
22. (New) The charge-air cooler as claimed in claim 4, wherein the cohesive material joint is a welded or soldered joint.
23. (New) The charge-air cooler as claimed in claim 11, wherein the openings in the bottom are produced by punching counter to a hydraulic internal high pressure.
24. (New) The charge-air cooler as claimed in claim 13, wherein the header box wall thickness is greater than 3 mm.
25. (New) The charge-air cooler as claimed in claim 14, wherein the header box wall thickness is smaller than 4 mm.

26. (New) The charge-air cooler as claimed in claim 15, wherein the bottom curvature, at least in some regions, has a radius of curvature greater than 200 mm.
27. (New) The charge-air cooler as claimed in claim 16, wherein the bottom curvature, at least in some regions, has a radius of curvature smaller than 300 mm.
28. (New) The charge-air cooler as claimed in claim 17, wherein the bottom curvature in the transition region to the cover, at least in some regions, has a radius of curvature greater than 10 mm.
29. (New) The charge-air cooler as claimed in claim 18, wherein the bottom curvature in the transition region to the cover, at least in some regions, has a radius of curvature smaller than 15 mm.